

## **REMARKS**

Claims 1-7, 9-14, 16-26 and 28-32 are now pending in the application and stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-7, 9, 11-14, 16, 17, 25, 29-32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yanosy (U.S. Pub. No. 2003/0217128). This rejection is respectfully traversed.

Claim 1 is amended to recite "...allocating at least one resource of the system to the client based on the negotiated contract; and when the client is using the at least one allocated resource; monitoring QoS parameters with respect to the negotiated contract to determine whether the client is using the at least one allocated resource in accordance with the negotiated contract, and changing the allocation to the client application of the at least one allocated resource in response to usage of the at least one allocated resource by the client application determined to be not in accordance with the negotiated contract; the method performed by a processor configured with memory included in the system, the providing, receiving, notifying, allocating, monitoring, and changing performed using an information broker of the system."

Independent claim 12 is amended to recite "...while the client is using a resource allocated to the client as a result of the contract, manage the allocated resource in accordance with the contract and monitor the allocated resource to determine whether the client is using the allocated resource in accordance with the contract; and change a

QoS attribute of the resource allocated to the client, the change based on a determination by the broker that a QoS parameter for the allocated resource has varied from a value established in the contract.”

Yanosy discloses a QoS framework that enables software application behavior modification at an application platform interface (API) in response to requests across the API. (paragraph [0002]) Behavior modification appears to be made only in response to an application request. Behavior modification takes place either as a result of negotiating by negotiators (60, 62, 64) as to an application’s service request (Fig. 5) or as a result of the changing of upper-level rules and policies by the QoS manager 66. (Fig. 6) However, although the QoS manager 66 might activate/manage the knowledge base and rules module 38 to establish constraints, these constraints also are on the responses of the middleware layer 18 for mediating QoS application requirements with platform capabilities. (paragraph [0034]) The framework of Yanosy does not appear to provide for modification of QoS behavior at a network (*i.e.*, packet) level (*see, e.g.*, paragraphs [0005]-[0008]). An application that has already been through the negotiation process with negotiators (60, 62, 64) does not appear to undergo behavior modification while using an allocated resource. Additionally, the framework 10 of Janosy applies system-wide rules (paragraph [0018]) in response to service requests from applications 14, 16 and does not appear to monitor whether resource usage by a specific application is in accordance with the negotiated provision of resources to that specific application. Therefore Janosy cannot teach “...when the client is using the...allocated resource: monitoring QoS parameters with respect to the negotiated contract to determine whether the client is using the...allocated resource in accordance with the negotiated

contract, and changing the allocation to the client application of the...allocated resource in response to usage of the...allocated resource by the client application determined to be not in accordance with the negotiated contract..." as recited in claim 1 as amended. Further, Yanosy cannot teach the foregoing recitation of claim 12 as amended.

Claim 25 is amended to recite "...instructions executable by the processor to, through the broker, create and directly manage the new resource at a middleware layer of the information system."

The middleware of Janosy mediates application access to platform resources but does not appear to directly manage platform resources. Specifically, the layer 18 provides mediation services between the applications 14, 16 and the network host platform and resource layer 30, to the applications 14, 16 and other lower level middleware services such as Parlay available to the applications 14, 16 through the Parlay APIs. The QoS middleware layer 18 acts as a proxy for the network host platform and resource layer 30. (paragraph [0032]-[0033]; Fig. 6, use case 68) Resource management, however, is apparently performed below the middleware layer 18.

As to claims 5 and 6, there is no disclosure in Yanosy of a self-configurable resource. The Final Office Action refers to paragraphs 20-21 of Yanosy, but those paragraphs refer to ontologies and knowledge bases. The platform QoS capabilities knowledge base 48 defines service QoS parameters, supported QoS values, and platform QoS policies. There does not appear to be a description of self-configurable resources.

For at least the foregoing reasons, Applicant respectfully submits that claims 1-7, 9, 11-14, 16, 17, 25 and 29-32 are not anticipated by Yanosy.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 10, 18-24, 26, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yanosy (U.S. Pub. No. 2003/0217128) and further in view of Loewy et al. (U.S. Pub. No. 2004/0193703). This rejection is respectfully traversed.

As previously discussed, Applicant believes claims 1 and 12 to be allowable. Accordingly, Applicant respectfully submits that dependent claims 10 and 18 also should be allowed.

Independent claim 19 is amended to recite "...when the contract has resulted in a resource having been allocated to the service requester and when the service requester is using the allocated resource, monitor the QoS parameters in the contract pertaining to the allocated resource to determine whether the contract is being adhered to; and change the QoS parameters of the contract of the service requester when the service requester is using the at least one resource, the changing performed based on the determining."

As previously discussed, Yanosy does not appear to disclose what might occur if an application 14 or 16 to which a service has been allocated does not adhere to whatever terms were previously negotiated for the allocation. For at least these reasons, Applicant submits that the foregoing recitation of claim 19 is not obvious in view of the cited references. Accordingly, Applicant respectfully submits that claims 19-24 should be allowed.

As to independent claim 26, the claim is amended to recite: "...the broker further configured to create at least one new resource of the information system based on the

contract, to monitor the created resource relative to the given quality of service after the created resource has been allocated under the contract to the given client application and as the created resource is being used by the given client application, and to at least temporarily adapt use of the created resource by the given client application to restore operation of the given client application under the contract to the given quality of service.”

As previously discussed, Yanosy does not appear to disclose what might occur if an application 14 or 16 to which a service has been allocated does not adhere to whatever terms were previously negotiated for the allocation. Further, Yanosy does not describe or suggest the creation of new resources by or through the middleware service layer 18. For at least these reasons, Applicant respectfully submits that claim 26 is not obvious in view of the cited references.

Claim 28 is amended to recite: “...the broker further configured to enforce the established contract by adapting the allocation to the client during a period in which the client uses the at least one resource outside the established contract.”

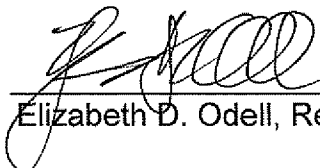
As previously discussed, Yanosy does not appear to disclose what might occur if an application 14 or 16 to which a service has been allocated does not adhere to whatever terms were previously negotiated for the allocation. For at least these reasons, Applicant respectfully submits that claim 28 is not obvious in view of the cited references.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7500.

Respectfully submitted,

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